ROYAL COLLEGE OF SURGEONS IN IRELAND

ADDRESS 3

TO THE

DEPARTMENT OF ANTHROPOLOGY

(BIOLOGICAL SECTION)

OF THE

BRITISH ASSOCIATION.

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BY

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Some few weeks ago Mr. James Parker, of Oxford, invited me to visit your Somersetshire caves, in the company of the Warwickshire Naturalists' and Archæologists' Field Club. It struck me that I should do well, as I was to preside over the Anthropological Department at this British-Association Meeting, if I tried to learn as much as I could of the relics and of the surroundings of the Prehistoric inhabitants of your neighbourhood; and for this, as well as for other reasons, I gladly accepted the invitation. During that pleasant midsummer excursion I was more than once impressed with the similarity which its incidents bore to those of the undertaking in which we are now engaged, and, indeed, to those of the study of Anthropology generally. First, the organization of the expedition had entailed some considerable amount of labour upon those who had charged themselves with that duty; and, secondly, a thorough exploration of the recesses and sinuosities of the several caves which we explored devolved upon us not only a good deal of exertion, but even some slight amount of risk; for the passages and galleries along which we worked our way were sometimes low and narrow, often steep, and nearly always slippery. Thirdly, the outline of the regions explored bore quite different aspects accordingly as we lighted them up or had them lit up for us in one or in another of several different ways.

If in any segment of these caves the outside daylight could anyhow find a zigzag way down some shaft into the interior, that segment wore a general aspect more comfortable to the eye, and so to the mind, than others not so illuminated. These latter regions again varied greatly *inter se*, according to the various artificial means employed for lighting them up. The means ordinarily used for this end made their outlines look a little colder and harder than the reality itself, cold and hard though this was; whilst under certain other modes of illumination employed (it is true, only occasionally, and for purposes of effect, not *ex necessitate*) the self-same outlines looked somewhat lurid. But, howsoever produced and howsoever affecting us, the light was light nevertheless, and, on the whole, we preferred it a good deal to the

arkness. It is never well to press a metaphor too far nor too closely; so I will now lay aside my parable, though it admits of some further extension, and take up the actual business of the Department.

It may be well to lay before the Department, first of all, the titles of a few of the principal subjects upon which we have papers prepared for us; and after, or indeed during the enumeration of these specimens of what will prove, I can assure you, a very valuable series of memoirs, we can proceed, as will be naturally suggested, to those general considerations with which it is customary to open the transactions of such assemblages as ours.

First among our contributors I must mention the President of the London Anthropological Institute, in which Institute the Ethnological Society of 1844 and the Anthropological Society of 1863 are united. Colonel Lane Fox has told us (Archæologia, xlii. p. 45, 1869) that it was whilst serving on the Subcommittee of Small Arms in 1851 that he had his attention drawn to the principle of continuity by observing the very slow gradations of progress that were taking place at that time in the military weapons of our own country. Out of those labours of his on that subcommittee other benefits have arisen to the country at large, of which it is not my province to speak. What I have to speak of is his suggestion, put out with greater definiteness in his invaluable Lecture on Primitive Warfare, delivered before the United-Service Institution, June 5, 1868 (p. 15), to the effect that his find at Cissbury furnishes the links which were wanting to connect the Palæolithic with the Neolithic Celt types. Sir John Lubbock* and Mr. Evans† have told us that they do not see their way towards accepting this view; and Mr. James Geikie, who holds that the palæolithic deposits are of preglacial and interglacial age, is almost necessitated, *ex hypothesi*, to repudiate any such transition. He does so (pp. 436–438 of his work on the Great Ice Age) in language which shows us that Colonel Lane Fox's lecture just referred to, with its diagram No. 1 (printed, it is true, for private circulation) could not have met his eye. Colonel Lane Fox's paper will relate to further explorations carried on at Cissbury during the present year by a Committee of the Anthropological Institute with the kind permission of Major Wisden, the owner of the soil. It will raise more than one large question for us to address ourselves to. I shall, when Colonel Lane Fox's paper comes before the Department, contribute towards its discussion by showing a number of flints from Cissbury, given me by my friend Mr. Ballard, of Broadwater.

Mr. Pengelly will, on Monday, give us an account of the "Anthropological Discoveries in Kent's Cavern." A more interesting subject will not often have been treated in a more interesting manner.

Polynesia and Australasia generally has always been an interesting field for the anthropologist. Our recent acquisition of Fiji makes it doubly interesting to us just now; and a flood of literature has burst forth upon us to meet that interest.

Professor Dr. Carl E. Meinicke is to be heartily congratulated on having, in the present year, brought out a work on the islands of the Pacific ('Die Inseln der Stillen Oceans, eine geographische Monographie.' Erster Theil, Melanesien und Neuseeland. Leipzig, 1875), in which he can, with not unbecoming pride, say that he is still working upon the same principles which guided him nearly fifty years ago in the composition of his works on the continent of Australia and the South-Sea races. Though I possess Professor Meinicke's works, I am not as yet entirely in possession of all his views; but so far as I can see, they are well worthy of attention. I do not hesitate, however, at all in saying that the most important contribution to the ethnology of Polynesia which has been made recently is the article on that subject in the 'Contemporary Review' for February 1873, by the Rev. S. Whitmee, of Samoa. I have to say that I am not without hopes that we shall be favoured with some papers upon the ethnology, anthropology, and future prospects of the Polynesian race by other persons eminently qualified to speak upon the subject, as having spent many years usefully among them, and on the spot. I observe that writers who have little respect for most things else, and by no means too much for themselves, speak still with something like appreciation of the work done in

* Nilsson's 'Primitive Scandinavia,' Editor's Introd. p. 24.

† 'Flint Implements,' p. 72.

those regions by the London Missionary Society; and we here shall value highly any papers which we may be favoured with from men who have had such long and such favourable opportunities for forming opinions on matters which touch at once our national and our scientific responsibilities.

What question can be of closer concernment than that of the possibility of rescuing the inhabitants of Polynesia from that gradual sliding into extinction which some writers appear to acquiesce in as the natural fate of such races. As a text for our discussions upon this subject, I will here quote to the Department a passage from the continuation of Waitz's 'Anthropologie' by Dr. Gerland—the author, be it remembered, of a special Monograph upon the Causes of the Decrease and Dying-out of Native Races, which appeared in 1868 ('Ueber das Aussterben der Naturvölker,' Leipzig), and has been often referred to by writers on anthropology since that year, and is referred to by himself in the passage I now lay before you. It runs thus ('Anthropologie der Naturvölker,' von Dr. Theodor Waitz, fortgesetzt von Dr. Georg Gerland, 1872, vol. ii. pp. 512, 513):—

"The decrease of the Polynesian populations is not now going on as fast as it was in the first half of the century; it has in some localities entirely ceased, whilst in others the indigenous population is actually on the increase*. From this it is clear that the causes for that disappearance of the native races which we discussed at length in the little book above referred to, are now less or no longer operative. For, on the one hand, the natives have adapted themselves more to the influences of civilization; they are not so amenable as they were at first to the action of diseases, although we still from time to time have instances to the contrary at the present moment (see, for example, Ev. Miss. Mag. 1867, p. 300, Cheever, 295) [or, I may add, our own recent information as to the destructive outbreak of measles in Fiji]; they have become more able to respond to the efforts to raise their mental and moral status than they were; and, with the advance of civilization, they have begun to avail themselves more of the remedial agencies which it brings with it. On the other hand, we cannot ignore the fact that the Europeans themselves, in spite of many important exceptions, have nevertheless done a very great deal for the natives, and are always doing more and more for them. Whilst in this matter the English Government deserves great praise, and whilst Sir George Grey has done more for the Polynesians than almost any other man, the missionaries nevertheless stand in the very first rank amongst the benefactors of these races, with their unwearied self-sacrificing activity; and Russel ('Polynesia,' Edinb., 1840) is entirely right in saying that all the progress which the Polynesians have made was really set on foot by the missionaries. They have had the greatest influence upon the civilization of the natives; they have taken their part and protected them when they could; they have further given them the fast foothold, the new fresh object, motive, and meaning for their whole existence, of which they stood so much in need. The Polynesians have often declared to the missionaries, 'If you had not come, we should have perished;' and they would have perished if their country had not been so discovered. The resources of their physical life were exhausted; and they had none of the moral nor ideal support for the needs of their spiritual nature which they stood so urgently in need of, as they had already attained a grade of culture too high to allow of their living without some support of that kind. It is true that extraneous circumstances have often, especially in the outset, brought about their conversion—as, for example, the authority of their chiefs, the force of example, as also, on the other hand, the occurrence of misfortune, great mortality, the loss of a battle, after which they wished to make the experiment of worshipping

* See 'Times' of last Saturday, August 21, 1875, p. 6, where the Natal correspondent, writing of the Caffres, tells us, "we shall have to begin civilizing the natives some day. We had better have begun with them ten years ago at 200,000 strong, than now at 350,000; but we had better begin with them now at 350,000 than ten years hence when they may number half-a-million." Since writing as above I have received through my friend the Rev. W. Wyatt Gill a long extract from a paper written in 1861, by the Rev. A. W. Murray. This paper fully confirms Gerland's more recent views as to the prospects of the native races. Mr. Murray, having spent forty years in Polynesia, has the best right to be heard upon it.

a new god (Russel, pp. 386, 390). And it is also true that the missionaries have introduced them to an exceedingly bigotted and often little-elevated form of Christianity; but even this has been a fortunate circumstance; for just the comprehensibility, the plain appeal to the senses, of this new religion took hold of the imagination of these races, and they could take hold of it with their understanding; and howsoever it may have been put before them, it was immeasurably above the level of heathenism, and considerably above that of Mahommedanism. Whatever the dogmas taught were, the ethics of Christianity were taught with them; and in most cases the missionaries gave, at the same time, in their lives striking examples of the value of those ethics; and the fact of their maintenance and exemplification was the main thing."

Mr. Bagehot has been quoted by Mr. Darwin, in his 'Descent of Man,' ed. 1, vol. i. p. 239, ed. 2, p. 182, as saying that "it is a curious fact that savages did not formerly waste away before the classical nations, as they do now before the modern civilized nations; had they done so the old moralists would have mused over the event; but there is no lament in any writer of that period over the perishing barbarians." On reading this for the first, and indeed for a second time, I was much impressed with its beauty and originality; but beauty and originality do not impress men permanently unless they be coupled with certain other qualities. And I wish to remark upon this statement, first, that it is exceedingly unsafe to argue from the silence of any writer, ancient or modern, to the non-existence of the non-mentioned thing. I do not recollect any mention in the ancient writers of Stonehenge, nor can I call to mind at this moment any catalogue of the vocabularies of the Cimbri and Teutones, of the Ligures and Iberians, with whom the ancients were brought into prolonged contact. These little omissions are much to be regretted, as, if they had been filled up, a great many very interesting problems would thus have been settled for us which we have not as yet settled for ourselves. But these omissions do not justify us in thinking that Stonehenge is an erection of post-Roman times, nor in holding that any of the strange races mentioned were devoid of a language. But, secondly, what we know of the classical nations dates from a time when the "merciless bronze," had begun to give way to the "dark gleaming" steel. But long before the displacement of bronze weapons by iron ones, the bronze had had abundant time to displace both stone weapons and the people who used them. And it is plain enough to suggest that one reason why the old moralists did not muse over the disappearance of the aboriginal races lies in the fact that these races had neither a contemporary Homer to sing their history, nor an Evans to interpret their weapons after their extinction. The actual Homeric poems deal with a region thickly peopled and long subdued by a Greek-speaking metal-using race. Rhodes and Crete were as different then from what Fiji and New Guinea are now, as Merion and Idomeneus are from Thakombau and Rauparahu. But, thirdly, let us ask, as the philosophers did with regard to the fish and its weight in and out of the bucket of water, Are the facts about which we are to inquire really facts? Now I am not going to plunge into the excursuses appended to editions of Herodotus, nor to discuss the history of the Minyæ, or of any other race of which we know as little. But I will just quote a few verses from a beautiful passage in Job which appear to me to give as exact a description of a barbarous race perishing and outcast, as could be given now by a poetical observer in Australia or California. Speaking of such a race the poet says:—

"For want and famine they were solitary, fleeing into the wilderness in former time desolate and waste. Who cut up mallows by the bushes, and juniper roots for their meat. They were driven forth from among men, (they cried after them as after a thief;) To dwell in the cliffs of the valleys, in caves of the earth, and in the rocks. Among the bushes they brayed; under the nettles they were gathered together. They were children of fools, yea, children of base men; they were viler than the earth" (Job, chap. xxx. ver. 3–8).

I opine that these unhappy savages must have "wasted away" under these conditions, and that there is no need, with such actual *veræ causæ* at hand, to postulate the working of any "mysterious" agency, any inscrutable poisonous action "of the breath of" civilization. What is mysterious to me is not civilization, but the fact that people who are in relation with it do not act up to its behests. And what

is the mystery to me is not how an epidemic can, when introduced amongst helpless Polynesians, work havoc, but how it is that epidemics should be allowed to do so here in England from time to time. We are but some four years away from the last small-pox epidemic, of the management, or rather mismanagement, of which I had myself some little opportunity of taking stock; and what we saw then in England renders it a little superfluous to search for recondite causes to account for depopulation in countries without Local Boards. You owe much in Bristol to your able, energetic, and eminently successful officer of health, Dr. David Davies. I hope he may favour us with his views upon this very interesting subject, and may, knowing, as he well does, how much energy and knowledge are required for the reduction of a rate of mortality, tell us how much wickedness, perversity, and ignorance are necessary for increasing such a rate, whether in Great or in Greater Britain. I think that he will tell us that what is mysterious is not the power of the principles of action I have just mentioned, but the toleration of them. Such, at least, are my views*.

We have several philological papers promised us. Amongst them will be one by the Rev. John Earle, who is known to you in the neighbourhood as living near Bath, and who is known to people not so pleasantly situated on the earth's surface as you are, as the author of a Handbook of the English tongue. I shall, as he will be present hereafter to speak on philology, spare myself and you the trouble of any remarks on that truly natural science, observing merely that Dr. Farrar † and Professor Häckel ‡ are both agreed upon one point, namely that the adoption of natural-history methods by the students of languages has opened up for them a fresh career of importance and interest and usefulness.

Somersetshire is not without its historian; and the possibility of his coming renders it unadvisable for me to say any thing now as to the relation of history to our subject upon the present occasion. If, however, the Department can find time to listen to me a second time, I shall be glad to read a short paper myself upon this very subject, mainly in the hope of getting Mr. Freeman to speak upon it also.

I come now (perhaps I should have come before) to the consideration of the subject of craniology and craniography. Of the value of the entirety of the physical history of a race there is no question; but two very widely opposed views exist as to the value of skull-measuring to the ethnographer. According to the views of one school, craniography and ethnography are all but convertible terms; another set of teachers insist upon the great width of the limits within which normal human crania from one and the same race may oscillate, and upon the small value which, under such circumstances, we can attach to differences expressed in tenths of inches or even of centimetres. As usual, the truth will not be found to lie in either extreme view. For the proper performance of a craniographic estimation, two very different processes are necessary: one is the carrying out and recording a number of measurements; the other is the artistic appreciation of the general impressions as to contour and type which the survey of a series of skulls produce upon one. I have often thought that the work of conducting an examination for a scholarship or fellowship is very similarly dependent, when it is properly carried out, upon the employment of two methods—one being the system of marking, the other that of

* Since I wrote as above, we have received the news of the murder of Commodore Goodenough at Santa Cruz. Commodore Goodenough was one of those persons to have met whom makes a man feel himself distinctly the better for his interviews and intercourse. He was not only a typical representative of what is called "Armed Science," he not only possessed the eye to watch and the arm to strike, happily so common in our two services, but he added to all this a cultivation and refinement duly set forth and typified by manners which were

"not idle but the fruit
Of loyal nature and of noble mind."

It is indeed a "puzzling world," as it has been forcibly phrased, in which such a man loses his life, and we lose his power for good, through the act of what Wordsworth calls

"A savage, loathsome, vengeful, and impure."

Still Corfe Castle is near enough to Bristol to prevent us from forgetting that we ourselves were once as treacherous and murderous as the modern Papuans, and that less than 900 years ago. If we have improved, there is hope for them.

† Farrar on the Growth of Language: pp. 17, 18, Journal of Philology, 1868.

‡ Häckel, 'Anthropogenie,' 1874, p. 361.

getting a general impression as to the power of the several candidates; and I would wish to be understood to mean by this illustration not only that the two lines of inquiry are both dependent upon the combination and counterchecking of two different methods, but also that their results, like the results of some other human investigations, must not be always, even though they may be sometimes, considered to be free from all and any need for qualification. Persons like M. Broca and Professor Aeby, who have carried out the most extensive series of measurements, are not the persons who express themselves in the strongest language as to craniography being the universal solvent in ethnography or anthropology. Aeby, for example, in his 'Schädelformen der Menschen und der Affen,' 1867, p. 61, says:—Aus dem gesagten geht hervor, dass die Stellung der Anthropologie gegenüber den Schädelformen eine ausserordentlich schwierige ist;" and the perpetual contradiction of the results of the skull-measurements carried out by others, which his paper (published in last year's 'Archiv für Anthropologie,' pp. 12, 14, 20) abounds in, furnishes a practical commentary upon the just quoted words. And Broca's words are especially worth quoting, from the 'Bulletin de la Société d'Anthropologie de Paris,' Nov. 6, 1873, p. 824:—"Dans l'état actuel de nos connaissances la craniologie ne peut avoir la pretention de voler de ses propres ailes, et de substituer ses diagnostics aux notions fournies par l'ethnologie et par l'archéologie."

I would venture to say that the way in which a person with the command of a considerable number of skulls procured from some one district in modern times, or from some one kind of tumulus or sepulchre in prehistoric times, would naturally address himself to the work of arranging them in a museum, furnishes us with a concrete illustration of the true limits of craniography. I say "a person with the command of a considerable number of skulls;" for, valuable as a single skull may be, and often is, as furnishing the missing link in a gradational series, one or two skulls by themselves do not justify us (except in rare instances, which I will hereinafter specify) in predicating any thing as to their nationality. Greater rashness has never been shown, even in a realm of science from which rashness has only recently been proceeded against under an Alien Act, than in certain speculations as to the immigration of races into various corners of the world, based upon the casual discovery in such places of single skulls, which skulls were identified on the ground of their individual characters as having belonged to races shown on no other evidence to have ever set foot there.

It is, of course, possible enough for a skilled craniographer to be right in referring even a single skull to some particular nationality; an Australian or an Eskimo, or an Andamanese might be so referred with some confidence; but all such successes should be recorded with the reservation suggested by the words, *ubi eorum qui perierunt*? and by the English line, "the many fail, the one succeeds." They are the shots which have hit, and have been recorded. But if it is unsafe to base any ethnographic conclusions upon the examination of one or two skulls, it is not so when we can examine about ten times as many—ten, that is to say, or twenty, the locality and the dates of which are known as certain quantities. A craniographer thus fortunate casts his eye over the entire series, and selects from it one or more which correspond to one of the great types based by Retzius not merely upon consideration of proportionate lengths and breadths, but also upon the artistic considerations of type, curve, and contour. He measures the skulls thus selected, and so furnishes himself with a check which even the most practised eye cannot safely dispense with. He then proceeds to satisfy himself as to whether the entire series is referable to one alone of the two great typical forms of Brachycephaly or Dolichocephaly, or whether both types are represented in it, and if so, in what proportions and with what admixture of intermediate forms. With a number of Peruvian, or, indeed, of Western American skulls generally, of Australian, of Tasmanian, of Eskimo, of Veddah, of Andamanese crania before him, the craniographer would nearly always, setting aside a few abnormally aberrant (which are frequently morbid) specimens, refer them all to one single type*.

* It is not by any means entirely correct to say that there is no variety observable among races living in isolated savage purity. The good people of Baden who, when they first saw them, said all the Bashkirs in a regiment brought up to the Rhine in 1813 by the Russians were as like to each other as twins, found, in the course of a

Matters would be very different when the craniographer came to deal with a mixed race like our own, or like the population of Switzerland, the investigation into the craniology of which has resulted in the production of the invaluable 'Crania Helvetica' of His and Rütimeyer. At once, upon the first inspection of a series of crania, or, indeed, of heads, from such a race, it is evident that some are referable to one, some to another, of one, two, or three typical forms, and that a residue remains whose existence and character is perhaps explained and expressed by calling them "Mischformen." Then arises a most interesting question—Has the result of intercrossing been such as to give a preponderance to these "Mischformen?" or has it not rather been such as in the ultimate resort, whilst still testified to by the presence of intermediating and interconnecting links, to have left the originally distinct forms still in something like their original independence, and in the possession of an unoverwhelmed numerical representation? The latter of these two alternative possibilities is certainly often to be seen realized within the limits of a modern so-called "English" or so-called "British" family; and His has laid this down as being the result of the investigations above-mentioned into the Ethnology of Switzerland. At the same time it is of cardinal importance to note that His has recorded, though only in a footnote, that the skulls which combine the characters of his two best-defined types, the "Sion-Typus" to wit, and the "Disentis-Typus," in the "Mischform" which he calls "Sion-Disentis Mischlinge," are the most capacious of the entire series of the "Crania Helvetica," exceeding, not by their maximum only, but by their average capacity also, the corresponding capacities of every one of the pure Swiss types*. Intercrossing, therefore, is an agency which in one set of cases may operate in the way of enhancing individual evolution, whilst in another, it so divides its influence as to allow of the maintenance of two types in their distinctness. Both these results are of equal biological, the latter is of preeminent archæological interest. Retzius† was of opinion, and, with a few qualifications, I think, more recent Swedish Ethnologists would agree, that the modern dolichocephalic Swedish cranium was very closely affined to, if not an exact reproduction of the Swedish cranium of the Stone Period; and Virchow‡ holds that the modern brachycephalic Danish skull is similarly related to the Danish skull of the same period. There can be no doubt that the Swedish cranium is very closely similar indeed to the Anglo-Saxon; and the skulls which still conform to that type amongst us will be by most men supposed to be the legitimate representatives of the followers of Hengest and Horsa, just as the modern Swedes, whose country has been less subjected to disturbing agencies, must be held to be the lineal descendants of the original occupiers of their soil. I am inclined to think that the permanence of the brachycephalic stock and type in Denmark has also its bearing upon the Ethnography of this country. In the Round-Barrow or Bronze Period in this country, sub-spheroidal crania (that is to say, crania of a totally different shape and type from those which are found in exclusive possession of the older and longer Barrows) are found in great abundance, sometimes, as in the South, in exclusive possession of the sepulchre, sometimes in company, as in the North, with skulls of the older type. The skulls are often strikingly like those of the same type from the Danish tumuli. On this coincidence I should not stake much, were it not confirmed by other indications. And foremost amongst these indications I should place the fact of the "Tree-interments," as they have been called (interments, that is, in coffins made out of the trunk of a

few weeks, that they could distinguish them readily and sharply enough (Crania Germaniæ Occid. p. 2; Archiv für Anthrop. v. p. 485, 1872). And real naturalists, such as Mr. Bates, practised in the discrimination of zoological differences, express themselves as struck rather with the amount of unlikeness than with that of likeness which prevails amongst savage tribes of the greatest simplicity of life and the most entire freedom from crossing with other races. But these observations relate to the *living heads*, not to the skulls.

* See Dr. Beddoe, Mem. Soc. Anth. Lond. iii. p. 552; Huth, p. 308, 1875; D. Wilson, cit. Brace, 'Races of the Old World,' p. 380.

† Ethnologische Schriften, p. 7.

‡ Archiv für Anthropologie, iv. pp. 71 and 80.

tree), of this country, and of Denmark, being so closely alike. The well-known monoxylic coffin from Gristhorpe contained, together with other relics closely similar to the relics found at Treenhoi, in South Jutland, in a similar coffin a skull which, as I can testify from a cast given me by my friend Mr. H. S. Harland, might very well pass for that of a brachycephalic Dane of the Neolithic period. Canon Greenwell discovered a similar monoxylic coffin at Skipton, in Yorkshire; and two others have been recorded from the same county—one from the neighbourhood of Driffield, the other from that of Thornborough. Evidence, again, is given by Colonel Lane Fox's opinion that the earthworks which form such striking objects for inquiry here and there on the East-Riding Wolds must, considering that the art of war has been the same in its broad features in all ages, have been thrown up by an invading force advancing from the east coast. Now we do know that England was not only made England by immigration from that corner or angle where the Cimbric Peninsula joins the main land, but that long after that change of her name this country was successfully invaded from that Peninsula itself. And what Swegen and Cnut did some four hundred and fifty years after the time of Hengist and Horsa, it is not unreasonable to suppose other warriors and other tribes from the same locality may have done perhaps twice or thrice as many centuries further back in time than the Saxon Conquest. The huge proportions of the Cimbri, Teutones, and Ambrones are just what the skeletons of the British Round-Barrow folk enable us now to reproduce for ourselves. It is much to be regretted that from the vast slaughters of Aquæ Sextiæ and Vercellæ, no relics have been preserved which might have enabled us to say whether Boiorix and his companions had the cephalic proportions of Neolithic Danes, or those very different contours which we are familiar with from Saxon graves throughout England, and from the so-called "Danes' graves" of Yorkshire. Whatever might be the result of such a discovery and such a comparison, I think it would in neither event justify the application of the term "Kymric" to the particular form of skull to which Retzius and Broca have assigned it.

Some years ago I noticed the absence of the brachycephalic British type of skull from an extensive series of Romano-British skulls which had come into my hands; and subsequently to my doing this, Canon Greenwell pointed out to me that such skulls as we had from late Keltic cemeteries, belonging to the comparatively short period which elapsed between the end of the Bronze Period and the establishment of Roman rule in Great Britain, seemed to have reverted mostly to the præ-Bronze dolichocephalic type. This latter type, the "kumbecephalic type" of Professor Daniel Wilson, manifests a singular vitality, as the late and much lamented Professor Phillips pointed out long ago at a Meeting of this Association held at Swansea—the dark-haired variety, which is very ordinarily the longer-headed and the shorter-statured variety of our countrymen, being represented in very great abundance in those regions of England which can be shown, by irrefragable and multifold evidence, to have been most thoroughly permeated, imbibed, and metamorphosed by the infusion of Saxons and Danes, in the districts, to wit, of Derby, Leicester, Stamford, and Loughborough. How, and in what way, this type of man, one to which some of the most valuable men now bearing the name of Englishman, which they once abhorred, belong, has contrived to reassert itself, we may, if I am rightly informed, hear some discussion in this department. Before leaving this part of my subject I would say that the Danish type of head still survives amongst us; but it is to my thinking not by any means so common, at least in the Midland counties, as the dark-haired type of which we have just been speaking. And I would add that I hope I may find that the views which I have here hinted at will be found to be in accord with the extensive researches of Dr. Beddoe, a gentleman who worthily represents and upholds the interests of Anthropology in this city, the city of Prichard, and who is considered to be more or less disqualified for occupying the post which I now hold, mainly from the fact that he has occupied it before, and that the rules of the British Association, like the laws of England, have more or less of an abhorrence of perpetuities.

The largest result which craniometry and cubage of skulls have attained is, to my thinking, the demonstration of the following facts, viz.:—first, that the cubical contents of many skulls from the earliest sepultures from which we have

any skulls at all, are larger considerably than the average cubical contents of modern European skulls; and secondly, that the female skulls of those times did not contrast to that disadvantage with the skulls of their male contemporaries which the average female skulls of modern days do, when subjected to a similar comparison *. Dr. Thurnam demonstrated the former of these facts, as regards the skulls from the Long and the Round Barrows of Wiltshire, in the Memoirs of the London Anthropological Society for 1865; and the names of Les Eyzies and Cro-Magnon, and of the Caverne de l'Homme Mort, to which we may add that of Solutré, remind us that the first of these facts has been confirmed, and the second both indicated and abundantly commented upon by M. Broca.

The impression which these facts make upon one, when one first comes to realize them, is closely similar to that which is made by the first realization to the mind of the existence of a subtropical Flora in Greenland in Miocene times. All our anticipations are precisely reversed, and in each case by a weight of demonstration equivalent to such a work; there is no possibility in either case of any mistake; and we acknowledge that all that we had expected is absent, and that where we had looked for poverty and pinching there we come upon luxurious and exuberant growth. The comparisons we draw in either case between the past and the present are not wholly to the advantage of the latter: still such are the facts. Philologists will thank me for reminding them of Mr. Chauncy Wright's brilliant suggestions that the large relative size of brain to body which distinguishes, and always, so far as we know, has distinguished the human species as compared with the species most nearly related to it, may be explained by the psychological tenet that the smallest proficiency in the faculty of language may "require more brain power than the greatest in any other direction," and that "we do not know and have no means of knowing what is the quantity of intellectual power as measured by brains which even the simplest use of language requires" †.

And for the explanation of the preeminently large size of the brains of these particular representatives of our species, the tenants of prehistoric sepulchres, we have to bear in mind, first, that they were, as the smallness of their numbers and the largeness of the tumuli lodging them may be taken to prove, the chiefs of their tribes; and, secondly, that modern savages have been known, and prehistoric savages may therefore be supposed, to have occasionally elected their chiefs to their chieftainships upon grounds furnished by their superior fitness for such posts—that is to say, for their superior energy and ability. Some persons may find it difficult to believe this, though such facts are deposed to by most thoroughly trustworthy travellers, such as Baron Osten Sacken (referred to by Von Baer, in the Report of the famous Anthropological Congress at Göttingen in 1861, p. 22). And they may object to accepting it, for, among other reasons, this reason—to wit, that Mr. Galton has shown us in his 'Men of Science, their Nature and Nurture,' p. 98, that men of great energy and activity (that is to say, just the very men fitted to act as leaders of and to commend themselves to savages)‡ have ordinarly smaller-sized heads than men possessed of intellectual power dissociated from those qualities.

The objection I specify, as well as those which I allude to, may have too much weight assigned to them; but we can waive this discussion and put our feet on firm ground when we say that in all savage communities the chiefs have a larger share of food and other comforts, such as there are in savage life, and have consequently better and larger frames—or, as the Rev. S. Whitmee puts it (*l. c.*), when observing on the fact as noticed by him in Polynesia, a more "portly bearing." This (which, as the size of the brain increases within certain proportions with the

* The subequality of the male and female skulls in the less civilized of modern races was pointed out as long ago as 1845, by Retzius in Müller's 'Archiv,' p. 89, and was commented upon by Huschke, of Jena, in his 'Schädel, Hirn und Seele,' pp. 48–51, in 1854.

† The bibliographer will thank me also for pointing out to him that the important paper in the 'North-American Review,' for October, for 1870, p. 295, from which I have just quoted, has actually escaped the wonderfully exhaustive research of Dr. Seidlitz (see his 'Darwin'sche Theorie,' 1875).

‡ An interesting and instructive story in illustration of the kind of qualities which do recommend a man to savages, is told us by Sir Bartle Frere in his pamphlet, 'Christianity suited to all forms of Civilization,' pp. 12–14.

increase of the size of the body, is a material fact in every sense) has been testified to by a multitude of other observers, and is, to my mind, one of the most distinctive marks of savagery as opposed to civilization. It is only in times of civilization that men of the puny stature of Ulysses or Agesilaus are allowed their proper place in the management of affairs. And men of such physical size, coupled with such mental calibre, may take comfort, if they need it, from the purely quantitative consideration, that large as are the individual skulls from prehistoric graves, and high, too, as is the average obtained from a number of them, it has nevertheless not been shown that the largest individual skulls of those days were larger than, or, indeed, as large as the best skulls of our own days; whilst the high average capacity which the former series shows is readily explicable by the very obvious consideration that the poorer specimens of humanity, if allowed to live at all in those days, were, at any rate, when dead not allowed sepulture in the "tombs of the kings," from which nearly exclusively we obtain our prehistoric crania. M. Broca* has given us yet further ground for retaining our self-complacency by showing, from his extensive series of measurements of the crania from successive epochs in Parisian burial-places, that the average capacity has gone on steadily increasing.

It may be suggested that a large brain, as calculated by the cubage of the skull, may nevertheless have been a comparatively lowly organized one, from having its molecular constitution qualitatively inferior from the neuroglia being developed to the disadvantage of the neurine, or from having its convolutions few and simple, and being thus poorer in the aggregate mass of its grey ossicular matter. It is perhaps, impossible to dispose absolutely of either of these suggestions. But, as regards the first, it seems to me to be exceedingly improbable that such could have been the case. For in cases where an overgrowth of neuroglia has given the brain increase of bulk without giving it increase of its true nervous elements, the Scotch proverb, "Muckle brain, mickle wit" applies; and the relatively inferior intelligence of the owners of such brains as seen nowadays may, on the principle of continuity, be supposed to have attached to the owners of such brains in former times. But those times were times of a severer struggle for existence than even the present; and inferior intelligences, and specially the inferior quickness and readiness observable in such cases, it may well be supposed, would have fared worse then than now. There is, however, no need for this supposition; for, as a matter of fact, the brain-case of brains so hypertrophied† has a very readily recognizable shape of its own, and this shape is not the shape of the Cro-Magnon skull, nor indeed of any of the Prehistoric skulls with which I am acquainted.

As regards the second suggestion, to the effect that a large braincase may have contained a brain the convolutions of which were simple, broad, and coarse, and which made up by consequence a sheet of grey matter of less square area than that made up in a brain of similar size but of more complex and slenderer convolutions, I have to say that it is possible this may have been the case, but that it seems to me by no means likely. Very large skulls are sometimes found amongst collections purporting to have come from very savage or degraded races; such a skull may be seen in the London College of Surgeons with a label, "5357 D. Bushman, G. Williams. Presented by Sir John Lubbock;" and, from what Professor Marshall and Gratiolet have taught us as to other Bushman brains, smaller, it is true, in size, we may be inclined to think that the brain which this large skull once contained may nevertheless have been much simpler in its convolutions than a European brain of similar size would be. This skull, however, is an isolated instance of such proportions amongst Bushman skulls, so far, at least, as I have been able to discover; whilst the skulls of Prehistoric times, though not invariably, are yet most ordinarily large skulls. A large brain with coarse convolutions puts

* See his paper, 'Bull. Soc. Anthrop. de Paris,' t. iii. ser. i. 1862, p. 102; or his collected Mémoires, vol. i. p. 348, 1871.

† I may, perhaps, be allowed to express here my surprise at the statement made by Messrs. Wilks and Moxon, in their very valuable Pathological Anatomy, pp. 217, 218, to the effect that they have not met with such cases of Cerebral Hypertrophy. They were common enough at the Children's Hospital in Great Ormond Street when I was attached to it.

its possessor at a disadvantage in the strugglo for existence, as its greater size is not compensated by greater dynamical activity; and hence I should bc slow to explain the large size of ancient skulls by suggesting that they contained brains of this negative character. And I am glad to see that M. Broca is emphatically of this opinion, and that, after a judicious statement of the whole case, he expresses himself thus (Revue d'Anthropologie, ii. 1, 38):—"Rien ne permet donc de supposer que les rapports de la masse encéphalique avec l'intelligence fussent autres chez eux que chez nous."

It is by a reference to the greater severity of the struggle for existence and to the lesser degree to which the principle of division of labour was carried out in olden days that M. Broca, in his paper on the Caverne de l'Homme Mort just quoted from, explains the fact of the subequality of the skulls in the two sexes. This is an adequate explanation of the facts; but to the facts as already stated, I can add from my own experience the fact that though the female skulls of Prehistoric times are often, they are not always equal, or nearly, to those of the male sex of those times; and, secondly, that whatever the relative size of the head, the limbs and trunk of the female portion of those tribes were, as is still the case with modern savages, very usually disproportionately smaller than those of the male. This is readily enough explicable by a reference to the operations of causes exemplifications of the working of which are unhappily not far to seek now, and may bo found in any detail you please in those anthropologically interesting (however otherwise unpleasant) documents, the Police Reports.

Having before my mind the liability we are all under fallaciously to content ourselves with recording thc shots which hit, I must not omit to say that one at least of the more recently propounded doctrines in Craniology does not seem to me to be firmly established. This is the doctrine of "occipital dolichocephaly" being a characteristic of the lower races of modern days and of Prehistoric races as compared with modern civilized races. I have not been able to convince myself by my own measurements of the tenability of this position; and I observe that Ihering has expressed himself to the same effect, appending his measurements in proof of his statements in his paper, "Zur Reform der Craniometrie," published in the 'Zeitschrift für Ethnologie' for 1873. The careful and colossal measurements of Aeby * and Weisbach † have shown that tho occipital region enjoys wider limits of oscillation than either of the other divisions of the cranial vault. I have some regret in saying this, partly because writers on such subjects as "Literature and Dogma" have already made use of the phrase, "occipitally dolichocephalic," as if it represented one of the permanent acquisitions of science; and I say it with even more regret, as it concerns thc deservedly honoured names of Gratiolet and of Broca, to whom Anthropology owes so much. What is true in the doctrine relates, among other things, to what is matter of common observation as to the fore part of the head rather than to any thing which is really constant in the back part of the skull. This matter of common observation is to the effect that when the ear is "well forward" in the head, we do ill to augur well of the intelligence of its owner. Now the fore part of the brain is irrigated by the carotid arteries, which, though smaller in calibre during thc first years of life, during which thc brain so nearly attains its full size, than they are in the adult, are nevertheless relatively large even in those early days, and are both absolutely, and relatively to thc brain which they have to nourish, much larger than the vertebral arteries, which feed its posterior lobes. It is easy therefore to see that a brain in which the forc part supplied by the carotids has been stinted of due supplies of food, or however stunted in growth, is a brain the entire length and breadth of which is likely to be ill-nourished. As I have never seen reason to believe in any cerebral localization which was not explicable by a reference to vascular irrigation, it was with much pleasure that I read thc remarks of Messrs. Wilks and Moxon in their recently published 'Pathological Anatomy,' pp. 207, 208, as to the indications furnished by the distribution of the Tacchionian bodies as to differences existing in the blood-currents on thc back and those on the fore part of the brain. These remarks are the more valuable, as mere hydraulics, Professor Clifton assures

* Aeby, 'Schädelform des Menschen und der Affen,' pp. 11, 12, and 128.
† Weisbach, 'Die Schädelform der Roumanen,' p. 32, 1869.

me, would not have so clearly pointed out what the physiological upgrowths seem to indicate. Any increase, again, in the length of the posterior cerebral arteries is *pro tanto* a disadvantage to the parts they feed. If the blood-current, as these facts seem to show, is slower in the posterior lobes of the brain, it is, upon purely physical principles of endosmosis and exosmosis, plain that these segments of the brain are less efficient organs for the mind to work with; and here again "occipital dolichocephaly" would have a justification, though one founded on the facts of the nutrition of the brain-cells, not on the proportions of the braincase. In many (but not in all) parts of Continental Europe, again, the epithet "longheaded" would not have the laudatory connotation which, thanks to our Saxon blood, and in spite of the existence amongst us of other varieties of dolichocephaly, it still retains here. And the brachycephalic head which, abroad* at least, is ordinarily a more capacious one, and carried on more vigorous shoulders and by more vigorous owners altogether, than the dolichocephalic, strikes a man who has been used to live amongst dolichocephali by nothing more forcibly, when he first comes to take notice of it, than by the nearness of its external ear to the back of the head; and this may be said to constitute an artistic occipital brachycephalism. But this does not imply that the converse condition is to be found conversely correlated, nor does it justify the use of the phrase "occipital dolichocephaly" in any etymological, nor even in any ethnographical sense.

I shall now content myself, as far as craniology is concerned, by an enumeration of some at least of the various recent memoirs upon the subject which appear to me to be of preeminent value. And foremost amongst these I will mention Professor Cleland's long and elaborate scientific and artistic paper on the Variations of the Human Skull, which appeared in the Philosophical Transactions for 1869. Next I will name Ecker's admirable, though shorter, memoir on Cranial Curvature, which appeared in the 'Archiv für Anthropologie,' a journal already owing much to his labours, in the year 1871. Aeby's writings I have already referred to, and Ihering's, to be found in recent numbers of the 'Archiv für Anthropologie' and the 'Zeitschrift für Ethnologie,' deserve your notice. Professor Bischoff's paper on the Mutual Relations of the horizontal circumference of the Skull and of its contents to each other and to the weight of the Brain, has not, as I think, obtained the notice which it deserves. It is to be found in the Proceedings of the Royal Society of Munich for 1864, the same year which witnessed the publication of the now constantly quoted 'Crania Helvetica,' of Professors His and Rütimeyer. Some of the most important results contained in this work, and much important matter besides, was made available to the exclusively English reader by Professor Huxley, two years later, in the 'Prehistoric Remains of Caithness.' I have made a list, perhaps not an exhaustive one, but containing some dozen memoirs by Dr. Beddoe, and having read them or nearly all of them, I can with a very safe conscience recommend you all to do the like. I can say nearly the same as regards Broca and Virchow, adding that the former of these two savans has set the other two with whom I have coupled him an excellent example, by collecting and publishing his papers in consecutive volumes.

But I should forget not only what is due to the place in which I am speaking, but what is due to the subject I am here concerned with, if in speaking of its literature, I omitted the name of your own townsman, Prichard. He has been called, and, I think, justly, the "father of modern Anthropology." I am but putting the same thing in other words, and adding something more specific to it, when I compare his works to those of Gibbon and Thirlwall, and say that they have attained and seem likely to maintain permanently a position and importance commensurate with that of the "stately and undecaying" productions of those great English Historians. Subsequently to the first appearance of those histories other works have appeared by other authors, who have dealt in them with the same periods of time. I have no wish to depreciate those works; their authors have not rarely rectified a slip and corrected an error into which their great predecessors had fallen. Nay, more, the later comers have by no means neglected to

* See upon this point:—Broca, Bull. Soc. Anth. Paris, ii. p. 648, 1861; *ibid.* Dec. 5, 1872; Virchow, Archiv für Anth. v. p. 535; Zeitschrift für Ethnol. iv. 2, p. 36; Sammlungen ix. 193, p. 45, 1874; Beddoe, Mem. Anth. Soc. Lond. ii. p. 350.

avail themselves of the advantages which the increase of knowledge and the vast political experience of the last thirty years have put at their disposal, and they have thus occasionally had opportunities of showing more of the true proportions and relations of even great events and catastrophes; still the older works retain a lasting value, and will remain as solid testimonies to English intellect and English capacity for large undertakings as long as our now rapidly extending language and literature live. The same may be most truthfully said of Prichard's 'Researches into the Physical History of Mankind.' An increase of knowledge may supply us with fresh and with stronger arguments than he could command for some of the great conclusions for which he contended; such, notably, has been the case in the question (though "question" it can no longer be called) of the Unity of the human species; and by the employment of the philosophy of continuity and the doctrine of evolution, with which the world was not made acquainted till more than ten years after Prichard's death, many a weaker man than he has been enabled to bind into more readily manageable burdens the vast collections of facts with which he had to deal. Still his works remain, massive, impressive, enduring—much as the headlands along our southern coast stand out in the distance in their own grand outlines, whilst a close and minute inspection is necessary for the discernment of the forts and fosses added to them, indeed dug out of their substance in recent times. If we consider what the condition of the subject was when Prichard addressed himself to it, we shall be the better qualified to take and make an estimate of his merits. This Prichard has himself described to us, in a passage to be found in the preface to the third volume of the third edition of the 'Physical History,' published in the year 1841, and reminding one forcibly of a similar utterance of Aristotle's, at the end of one of his logical treatises (Soph. Elench. cap. xxxiv. 6). These are his words:—

"No other writer has surveyed the same field, or any great part of it, from a similar point of view. . . . The lucubrations of Herder and other diffuse writers of the same description, while some of them possess a merit of their own, are not concerned in the same design, or directed towards the same scope. Their object is to portray national character as resulting from combined influences—physical, moral, and political. They abound in generalizations, often in the speculative flights of a discursive fancy, and afford little or no aid for the close induction from facts, which is the aim of the present work. Nor have these inquiries often come within the view of writers on Geography, though the history of the globe is very incomplete without that of its human inhabitants." A generation has scarcely passed away since these words were published in 1841; we are living in 1875; yet what a change has been effected in the condition of Anthropological literature! The existence of such a dignified quarterly as the 'Archiv für Anthropologie,' bearing on its titlepage in alphabetical order the honoured names of V. Baer, of Desor, of Ecker, of Hellwald, of His, of Lindenschmidt, of Lucæ, of Rütimeyer, of Schaafhausen, of Semper, of Virchow, of Vogt, and of Welcker, is in itself perhaps the most striking evidence of the advance made in this time, as being the most distinctly ponderable and in every sense the largest Anthropological publication of the day.

Archæology, which but a short time back was studied in a way which admirably qualified its devotees for being called "connoisseurs," but which scarcely qualified them for being called men of Science, has by its alliance with Natural History and its adoption of Natural-History methods, and its availing itself of the light afforded by the great Natural-History principles just alluded to, entered on a new career. There is, as regards Natural History, Anatomy, and Pathology, nothing left to be desired for the conjoint scheme represented by the periodical just mentioned, where we have V. Baer for the first and Virchow for the last, and the other names specified for the rest of these subjects; whilst Archæology, the other party in the alliance, is very adequately represented by Lindenschmidt alone. But when I recollect that Prichard published a work 'On the Eastern Origin of the Celtic Nations' ten years before the volume of 'Researches,' from which I have just quoted, and that this work has been spoken of as the work "which has made the greatest advance in Comparative Philology during the present century," I cannot but feel that the Redaction of the 'Archiv für Anthropologie' have not as yet learnt all that may be learnt from the Bristol Ethnologist; and they would do well to add to the

very strong staff represented on their titlepage the name of some one, or the names of more than one comparative philologist. This the Berlin 'Zeitschrift' has done.

Of the possible curative application of some of the leading principles of modern Anthropology to some of the prevalent errors of the day, I should be glad to be allowed to say a few words. The most important lesson as regards the future, I do not say the *immediate* future, which the modern study of Human Progress (for such all men who think, except the Duke of Argyll, are now agreed is the study of Anthropology) is the folly and impossibility of attempting to break abruptly with the past. This principle is now enforced with persistent iteration from many Anthropological platforms; and I cannot but think it might advantageously be substituted in certain portfolios for the older maxim, "Whatever is certainly new is certainly false," a maxim which seems at first sight somewhat like it, but which, as being based on pure ignorance of the past and teaching only distrust of the future, is really quite different from it. I am not sure that Prichard ever put forward the former of these two doctrines, though it is just the doctrine which would have commended itself to his large philosophical, many-sided, well-balanced judgment. He died in 1848—the very year which perhaps, of all save one in history, and that one the year 1793 (a year in which he was yet a child), showed in the most palpable way the absurdity of attempting to make civilization by pattern, and of hoping to produce a wholesome future in any other way than that of evolution from the past.

What have been called the senile, what could equally well have been called the cynical Ethics of Pessimism, had not in Prichard's time found any advocates in this country; indeed, so far as I have observed, they are of a more recent importation than most other modern heresies. I do not deny that at times it is possible to give way to certain pressing temptations to think that we are living in a certainly deteriorated and a surely deteriorating age, and that it is hopeless and useless to set up, or look up to, aspirations or ideals. When, for example, we take stock of the avidity with which we have, all of us, within the last twelve months read the memoirs of a man whom one of his reviewers has called a "high-toned aristocrat," but whom I should call by quite another set of epithets, we may think that we are not, after all, so much the better for the 3000 years which separate us from the time when it was considered foul play for a man to enact the part of a familiar friend, to eat of another man's bread, and then to lay great wait for him. Or can we, in these days, bear the contrast to this miserable spectacle of mean treachery and paltry disloyalty, which is forced upon us in the same history by the conduct of the chivalrous son of Zeruiah, who, when he had fought against Rabbah and taken the city of waters, sent for his king who had tarried in Jerusalem, lest that city should thenceforward bear the name, not of David, but of Joab? Or again, as I have been asked, have we got very far above the level of sentiment and sympathy which Helen, an unimpeachable witness, tells us the Trojan Hector had attained to and manifested in his treatment of her,

"With tender feeling and with gentle words"?

Would the utterances of any modern epic poet have so surely brought tears into the eyes of the noble-hearted boy depicted by Mr. Hughes, as the passage of Homer just alluded to, and characterized by him "as the most touching thing in Homer, perhaps in all profane poetry put together"? What answer can be made to all this by those who maintain that the old times were not better than these, who maintain the doctrine of Progress, and hold that man has been gradually improving from the earliest times, and may be expected to go on thus advancing in the future? An answer based upon the employment of simple scientific method, and upon the observance of a very simple scientific rule—upon, to wit, the simple method of taking averages, and the simple rule of enumerating all the circumstances of the case. Noble actions, when we come to count them up, were not, after all, so very common in the olden times; and side by side with them there existed, and indeed flourished, intertwined with them, practices which the moral sense of all civilized nations has now definitely repudiated. It is a disagreeable task, that of learning the whole truth; but it is unfair to draw dark conclusions as to the future, based on evidence drawn from an exclusive contemplation of the bright side of the past. A French work, published only last year, was recommended to me recently by an eminent scholar as containing

a good account of the intellectual and moral condition of the Romans under the Empire. I have the book, but have not been able to find in it any mention of the gladiatorial shows, though one might have thought the words *Panem et Circenses* might have suggested that those exhibitions entered as factors of some importance into the formation of the Roman character. It is impossible to go beyond that in the way of looking only at the bright side of things. Still we ourselves have less difficulty in recollecting that there were 300 Spartans sacrificed to the law-abiding instincts of their race at Thermopylæ, than in producing, when asked for them, the numbers of Helots whom Spartan policy massacred in cold blood not so many years after, or those of the Melians and Mitylenæans whom the polished and cultivated Athenians butchered in the same way, and about the same time, with as little or far less justification for doing so. Homer, whom I have above quoted, lived, it is true, some centuries earlier, but living even then he might have spared more than the five words contained in a single line (176 of 'Iliad' xxiii.) to express reprobation for the slaughter of the twelve Trojan youths at the pyre of Patroclus. The Romans could applaud Terence's line, "Homo sum, humani nihil a me alienum puto;" but it did not strike them till the time of Seneca that these noble words were incompatible with the existence of gladiatorial shows, nor till the time of Honorius did they legally abolish those abominations. Mutinies and rebellions are not altogether free from unpleasant incidents even in our days; but the execution of 6000 captives from a Servile war, in the way that Crassus executed his prisoners after the final defeat of Spartacus, viz. by the slow torture of crucifixion, is, owing to the advance of civilization, no longer a possibility. If the road from Capua to Rome witnessed this colossal atrocity, there are still preserved for us in its near neighbourhood the remains of Herculaneum and Pompeii to show us what foul broad-daylight exuberance could be allowed by the public conscience of the time of Titus and Agricola to that other form which sits "hard by Hate." The man who in those days contributed his factor to the formation of a better public opinion, did so at much greater risk than any of us can incur now by the like line of action. Much of what was most cruel, much of what was most foul in the daily life of the time, had, M. Gaston Boissier notwithstanding, the sanction of their state religion and the indorsement of their Statesmen and Emperors to support it. There was no public press in other lands to appeal to from the falsified verdicts of a sophisticated or a terrorized community. Though then as now,

"Mankind were one in spirit,"

freedom of intercommunication was non-existent; no one could have added to the words just quoted from Lowell their complemental words,

"And an instinct bears along,
"Round the earth's electric circle the swift flash of right or wrong."

The solidarity of nations had not, perhaps could not have been dreamt of—the physical prerequisites for that, as for many another non-physical good, being wanting.

Under all these disadvantages men were still found who were capable of aspiration, of hope for, and of love of better things; and by constant striving after their own ideal, they helped in securing for us the very really improved material, mental, and moral positions which we enjoy. What they did before, we have to do for those who will come after us.